Bacterial canker
*Pseudomonas syringae* (bacterium)

Bacterial canker is a minor stem disease that occurs mainly in western North America.

**Symptoms.** Symptoms first appear in January or early February as water-soaking on 1-year-old stems. The lesions rapidly develop into reddish brown to black, irregularly shaped cankers with definite margins. Cankers can extend the entire length of the stem or girdle stems. Buds in or above the canker area are killed. Shoot tip dieback is the most common symptom on young plants in nurseries or cuttings in propagation beds.

**Disease cycle.** The bacteria survive on the buds and bark and enter the plant through wounds caused by frost or pruning. Only 1-year-old stems are attacked. The bacteria can be spread by wind, rain, insects, propagation wood, and pruning tools. Cold weather and moisture favor the disease.

**Management.** Prune out diseased stems before the onset of fall rains; avoid late-summer nitrogen applications; apply copper in fall and spring; avoid wounding; protect from freeze injury; sterilize pruning tools.